

Chapter Problems: Volumes of Fish!

It's all about fish tanks.... This business, surprisingly enough is very profitable. The more creative the tanks, the more interesting they are to look at and the more they cost.

- Write a formula for the volume of each tank shown. (1 Point)
- Plug in the values in the formulas. (1 Point)
- Calculate the volumes of each of the fish tanks below and don't forget the units of measure. (2 Points)
- Answer the problem with a complete sentence. (1 Point)



1. The tech tank: This tank is housed in the case of a computer and is the shape of a rectangular prism. It is 49 cm wide, 39 cm tall, and 18 cm from front to back.

2. Laboratory Tank: This tank is created with 6 spheres, each having a diameter of 12". Each of the 8 connecting cylinder has a 2" radius and is 10" long. (This aquarium sells for \$6,500.00)

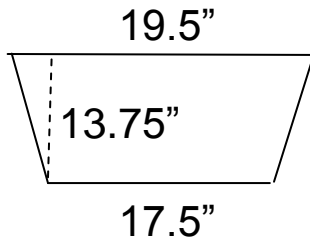


3. This tank is shaped like a cone. It has an altitude of 15 feet, a slant height of 17 feet.



4. Coffee Table Tank: This tank is a regular hexagonal prism with a piece of glass on top. The sides of the base are 30 inches and it is 16 inches deep. (By the way it is currently on sale for \$505.99 and empty it weighs 113 lbs.)

5. The Toilet Aquarium: The tank is a trapezoidal prism. The bases of the trapezoid are 19.5" and 17.5" with height of 13.75". The tank is 8.75" from front to back. (You can have a kit to add one to your toilet for a mere \$299.00.)



6. Aquarium Sink: Complete the look in your bathroom with this aquarium sink. The width of the sink is 42", it's length is 40", and is 20" deep. The bowl of the sink is a hemisphere with a radius of 15" (it's really an oval – shaped bowl, but let's use a hemisphere to make your calculations easier! Oh, by the way, it's only \$4,500)